WHAT IS CLAIMED IS:

1. A method for deciphering an alignment feature, comprising the steps of:

providing a feature on a semiconductor wafer having an elasticity that is different from material surrounding the feature;

applying stress to the wafer; and

scanning the feature with an atomic force microscope to determine a position of the feature based on the elasticity difference between the feature and the material surrounding the feature.

2. The method as recited in claim 1, wherein the step of applying stress to the wafer includes the step of applying acoustic energy to the wafer.

3. The method as recited in claim 1, wherein the acoustic energy includes ultrasonic energy.

4. The method as recited in claim 1, wherein the atomic force microscope includes a cantilever tip and the step of applying stress to the wafer includes vibrating the cantilever tip.

5. The method as recited in claim 1, further comprising the step of determining a location of the feature by employing an optical method.

6. The method as recited in claim 5, wherein the optical method includes employing a pattern recognition method.

7. The method as recited in claim 1, further comprising the step of aligning a bullet mark on a mask to the feature.

8. The method as recited in claim 7, wherein the step of aligning provides an alignment resolution of less than 20 nm.

9. A system for aligning a pattern to a semiconductor wafer, comprising:

a feature formed on the wafer, the feature including an elasticity that is different from material surrounding the feature;

an acoustic source which directs an acoustic beam on the surface of the wafer to apply stress to the wafer; and

an atomic force microscope having a tip, the tip for scanning the feature to determine a position of the feature based on an elasticity difference detected between the feature and the material surrounding the feature.

10. The system as recited in claim 9, wherein the acoustic source includes an ultrasonic energy source.

11. The system as recited in claim 9, further comprising an optical system for determining a location of the feature.

12. The system as recited in claim 11, wherein the optical system includes a pattern recognition program to decipher an area where the feature is located.

13. The system as recited in claim 9, wherein the feature includes a portion of a functional component of a semiconductor device.

14. The system as recited in claim 9, further comprising a stage for aligning a mask with the feature on the

wafer in accordance with information collected by the atomic force microscope.

15. The system as recited in claim 9, wherein the system provides an alignment resolution of less than 20 nm.

16. A system for aligning a pattern to a semiconductor wafer, comprising:

a feature formed on the wafer, the feature including an elasticity that is different from material surrounding the feature;

an atomic force microscope having a cantilevered tip; and

an acoustic transmitter coupled to the cantilevered tip to apply acoustical energy to the wafer by vibrating the cantilever tip such that the cantilevered tip scans the feature to determine a position of the feature based on the elasticity difference between the feature and the material surrounding the feature.

17. The system as recited in claim 16, further comprising an optical system for determining a location of the feature.

18. The system as recited in claim 17, wherein the optical system includes a pattern recognition program to decipher an area where the feature is located.

19. The system as recited in claim 16, wherein the feature includes a portion of a functional component of a semiconductor device.

20. The system as recited in claim 16, further comprising a stage for aligning a mask with the feature on the wafer in accordance with information collected by the atomic force microscope.

21. The system as recited in claim 16, wherein the system provides an alignment resolution of less than 20 nm.